# Mextrapolator: retuning

MuonOffline Meeting

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# Outlines

- Data used
- MExtrapolator performance without energy loss corrections.
- Mextrapolator with energy loss corrections + additional tuning.
- Conclusion
- Plan

# Data used

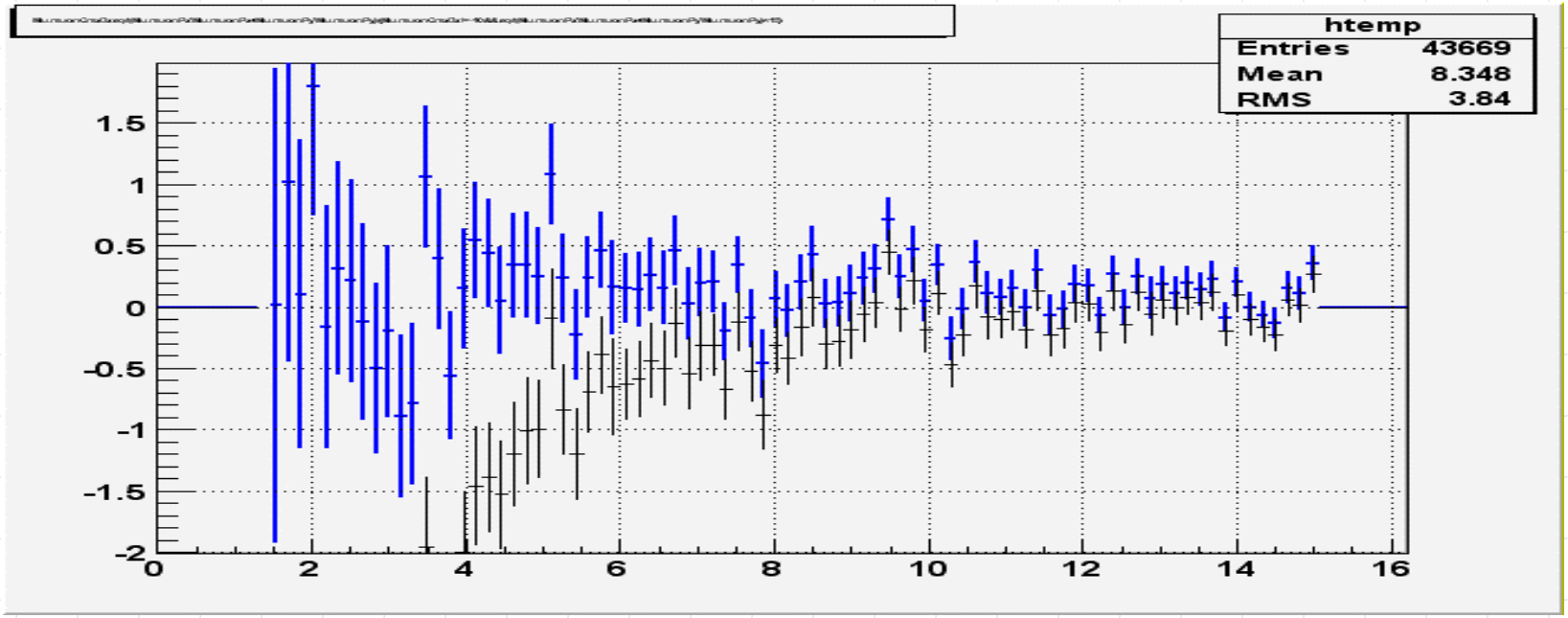
- MC: FAKE_EV single muons. Default simulation. Default reconstruction. Cdfsoft2 release v4.8.4.
- Data (not ready yet):~70K events from jbo0f dset (Jpsi→mumu strip)

# Mextrapolator: no E loss

- CMU, CMP matching values are not affected by the E loss. B field flux is relatively small in the CHA region→no sizeable correction to the trajectory
- CMX (IMU) matching is affected. Large B field flux (perpendicular to oZ) in the wall region → sizeable corrections, esp. for low p_T.

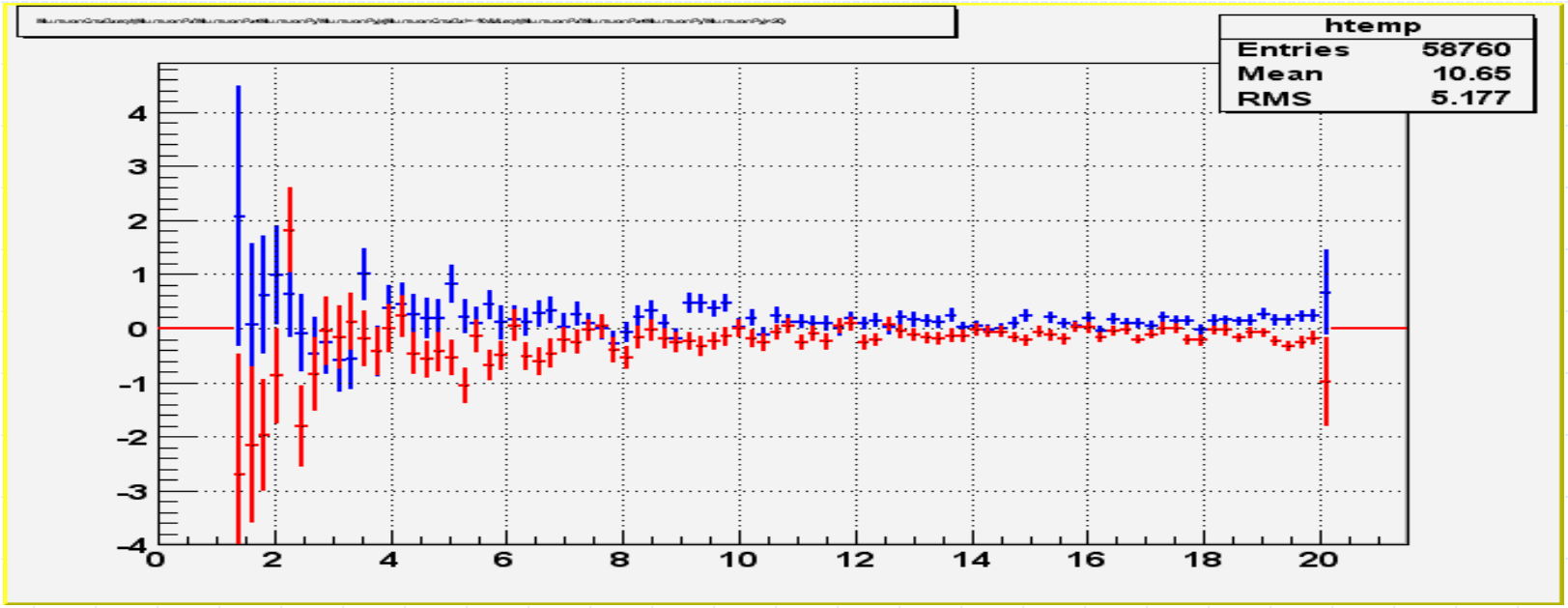
# Mextrapolator: retuned (comparison)

- CMU/CMP: no sizeable effect.
- CMX: good improvement.



# Mextrapolator: retuned (charge dependence)

- CMX: some noticeable charge dependence, might need some additional correction.



# Conclusion

- Mextrapolator is tuned well for CMX.

# Plans

- Take a look at the jpsi data.
- Possibly “de”-tune for high p_T
- Commit the changes.